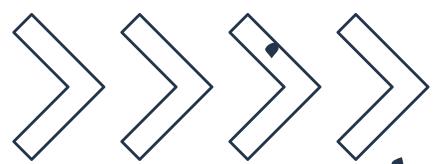


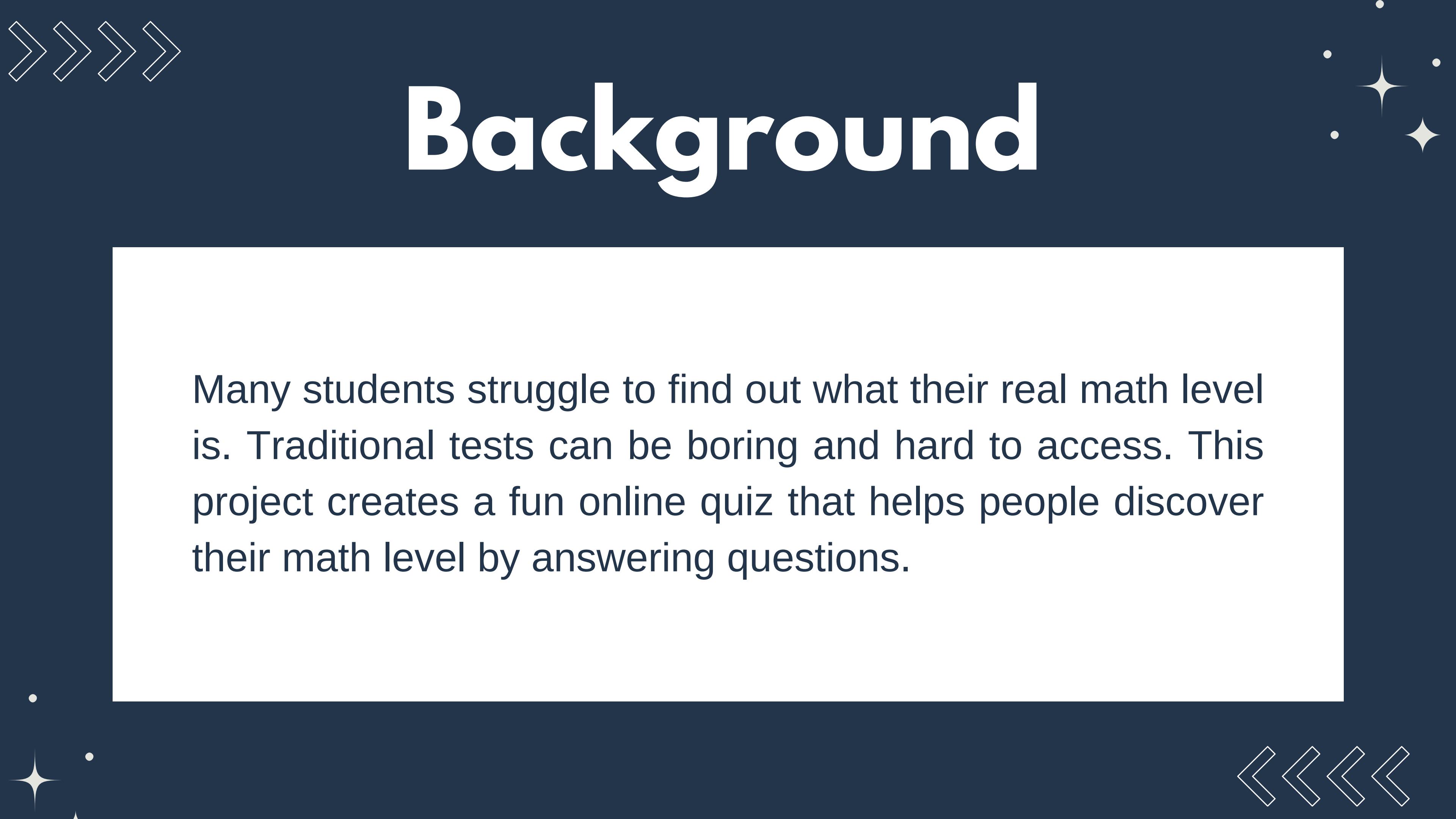
Math Quiz Application

MathUp

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Background

Many students struggle to find out what their real math level is. Traditional tests can be boring and hard to access. This project creates a fun online quiz that helps people discover their math level by answering questions.

Objective

This application helps users practice and test their math skills through level based questions. Each level matches a school grade, starting from pre kindergarten up to college.

Users get one question at a time. If they answer correctly, they move to the next question or next level, and their score increases by 2.2 points for each correct answer (total 45 questions for 15 levels). If they answer wrong, the game ends.

At the end, the app shows the user's final score and the highest level they reached, so they can see what level they are at.

Technologies Used

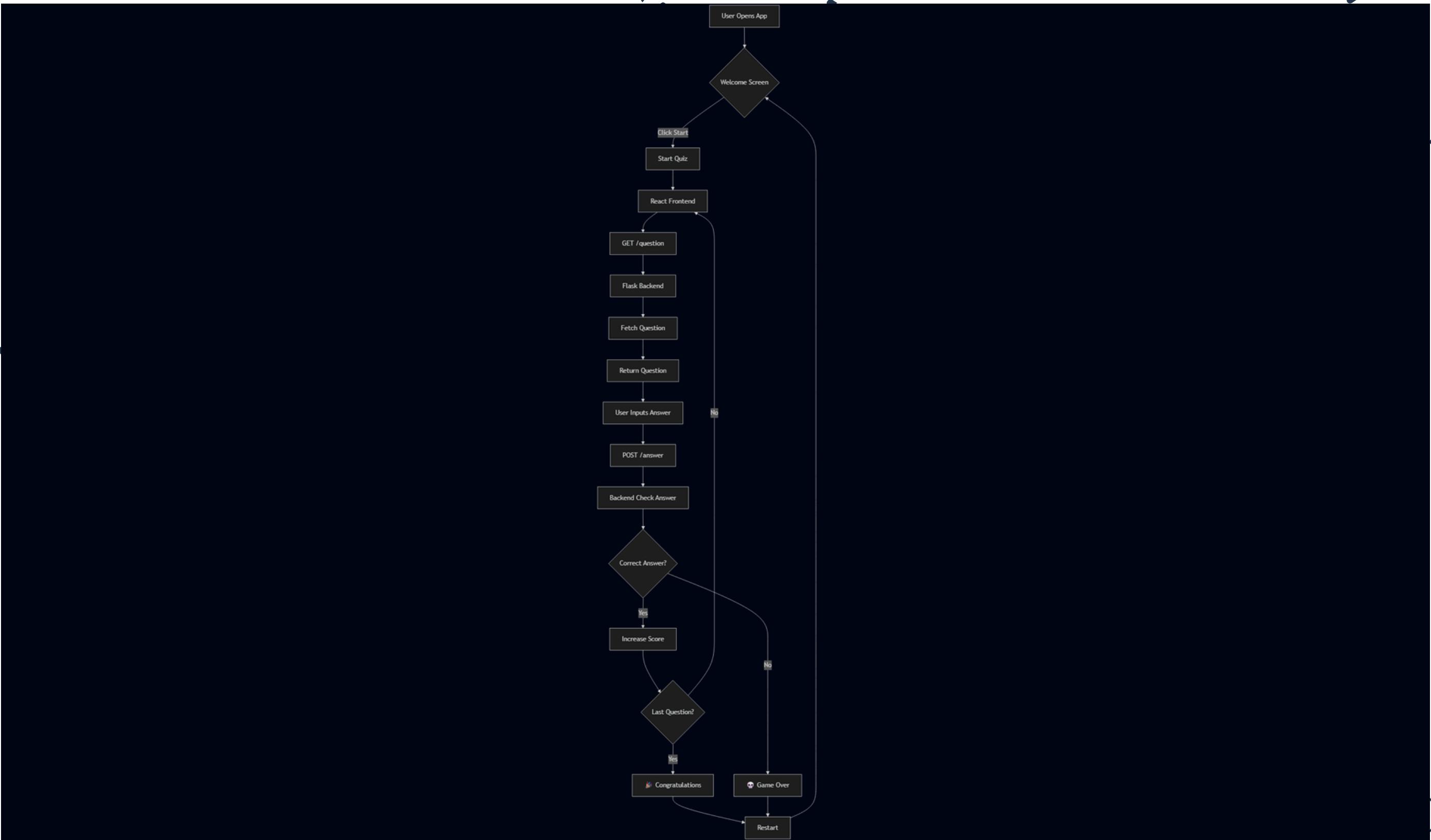
Frontend

React JS
CSS

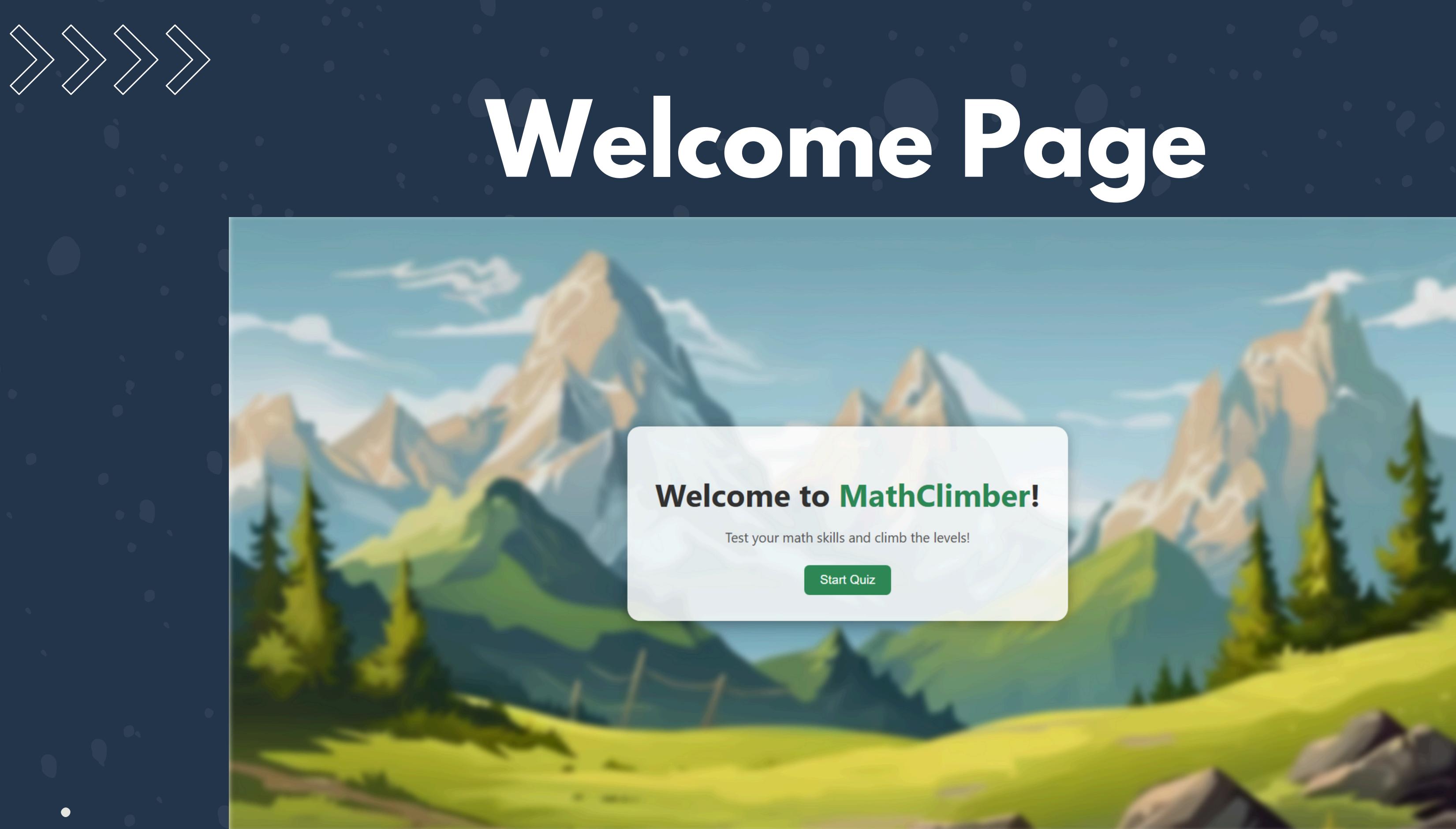
Backend

Python
Flask
Flask-CORS

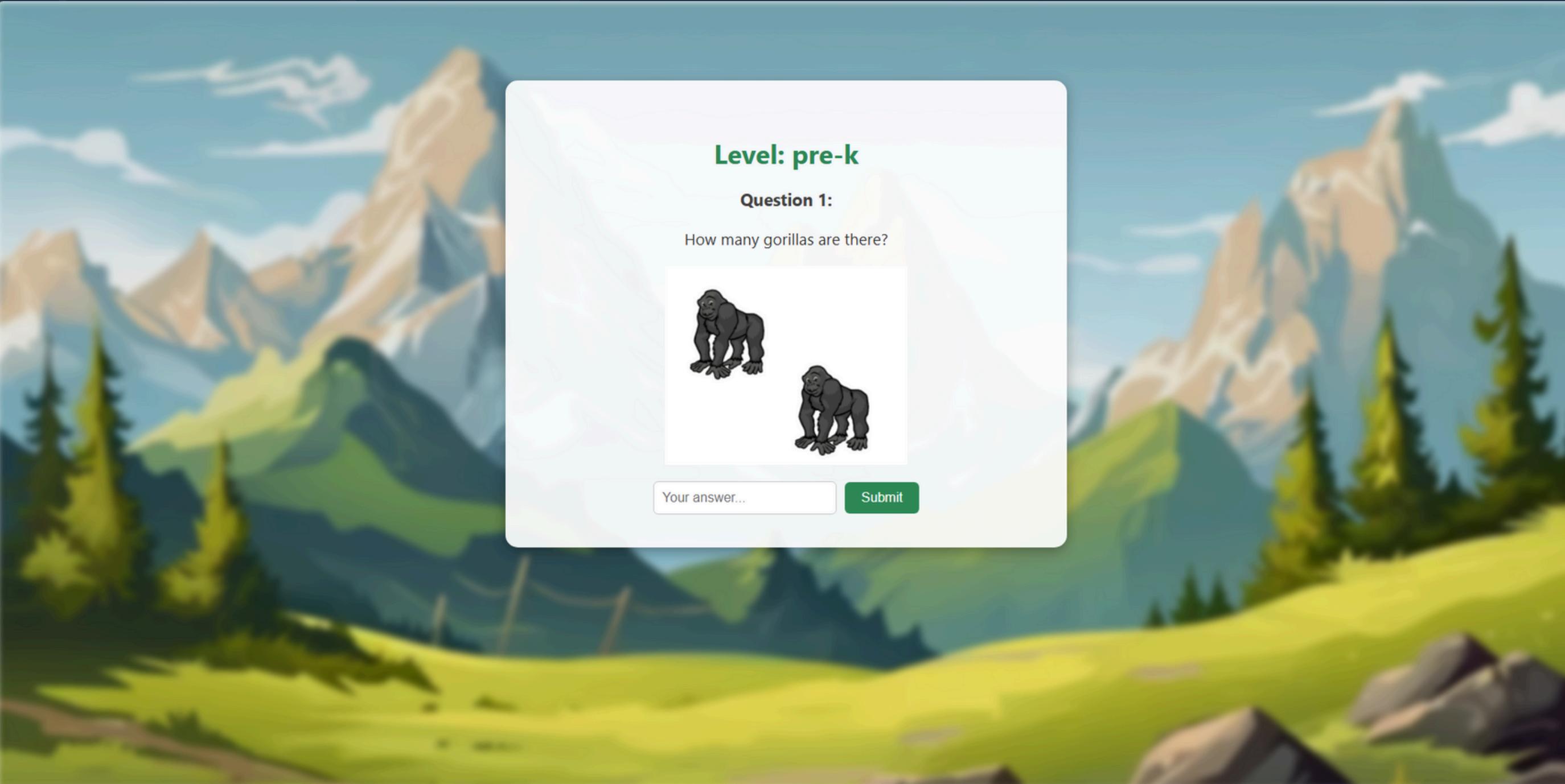
Flowchart



Results



Quiz Page

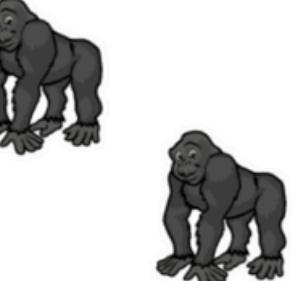


A scenic landscape featuring a range of mountains with green and brown peaks under a blue sky with white clouds. In the foreground, there's a grassy field with some rocks and a small wooden fence.

Level: pre-k

Question 1:

How many gorillas are there?

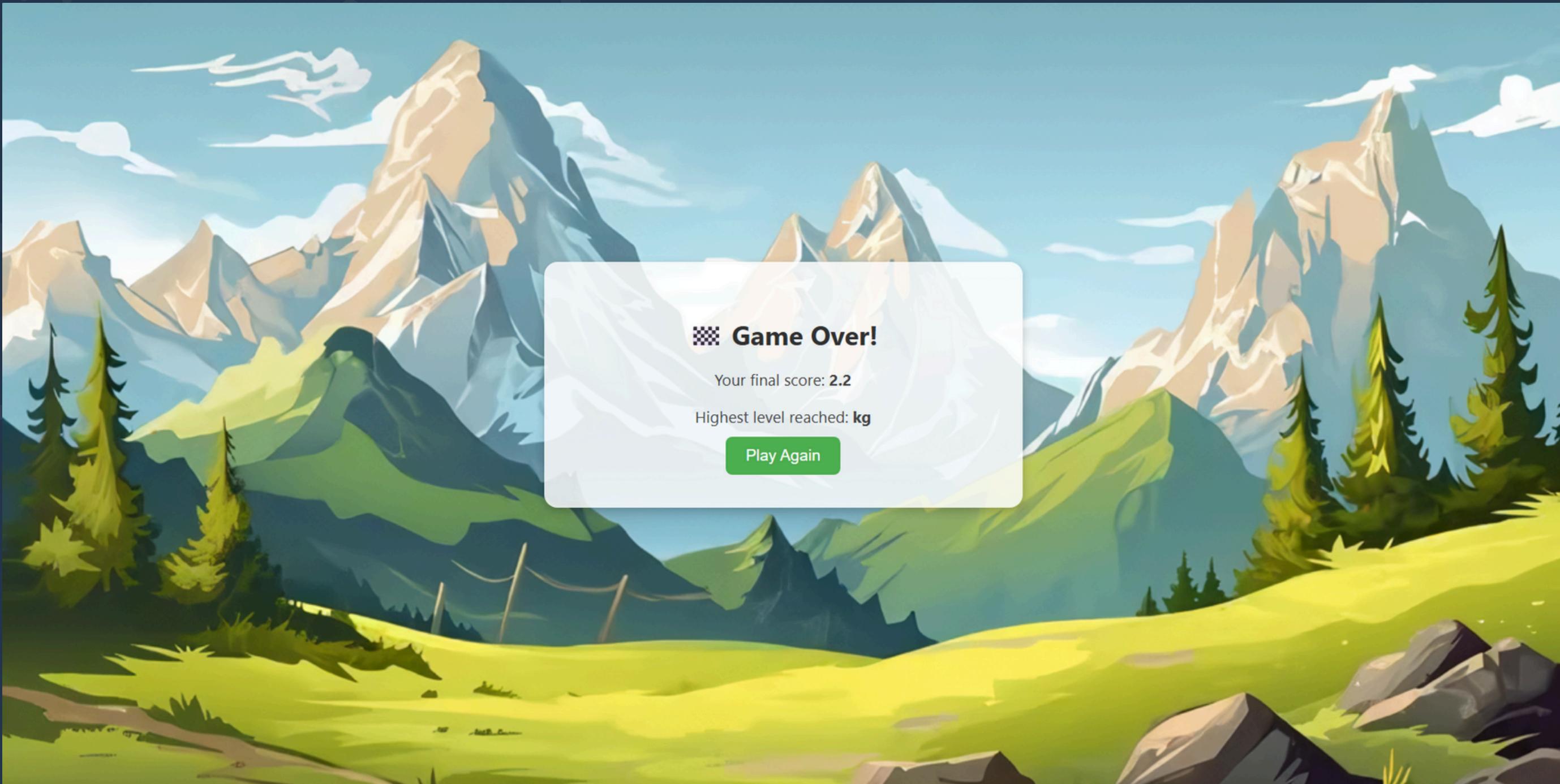


Submit





Game Over Page



Docker Container

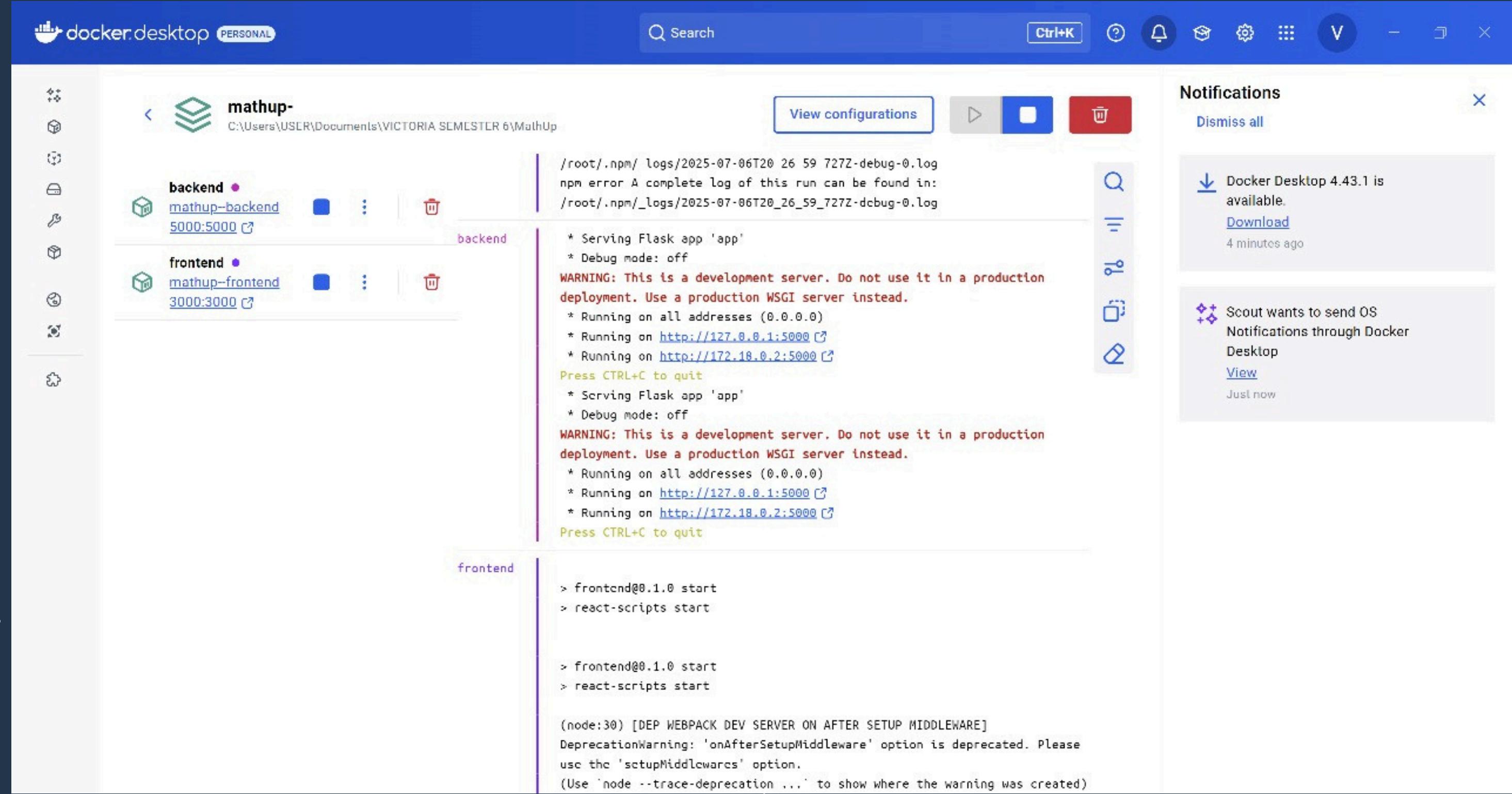


Docker Compose Build

```
PS C:\Users\USER> cd "C:\Users\USER\Documents\VICTORIA SEMESTER 6\MathUp-"  
PS C:\Users\USER\Documents\VICTORIA SEMESTER 6\MathUp-> docker-compose up --build  
time="2025-07-07T03:25:07+07:00" level=warning msg="C:\\\\Users\\\\USER\\\\Documents\\\\VICTORIA SEMESTER 6\\\\MathUp-\\\\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"  
Compose can now delegate builds to bake for better performance.  
To do so, set COMPOSE_BAKE=true.  
[+] Building 16.6s (25/25) FINISHED docker:desktop-linux  
=> [backend internal] load build definition from Dockerfile 0.0s  
=> => transferring dockerfile: 361B 0.0s  
=> [backend internal] load metadata for docker.io/library/python:3.10-slim 2.5s  
=> [backend auth] library/python:pull token for registry-1.docker.io 0.0s  
=> [backend internal] load .dockerignore 0.0s  
=> => transferring context: 2B 0.0s  
=> [backend 1/5] FROM docker.io/library/python:3.10-slim@sha256:9dd6774a1276178f94b0cc1fb1f0edd980825d0ea7634847 0.0s  
=> => resolve docker.io/library/python:3.10-slim@sha256:9dd6774a1276178f94b0cc1fb1f0edd980825d0ea7634847af9940b1 0.0s  
=> [backend internal] load build context 0.0s  
=> => transferring context: 335B 0.0s  
=> CACHED [backend 2/5] WORKDIR /app 0.0s  
=> [backend 3/5] COPY requirements.txt . 0.0s  
=> [backend 4/5] RUN pip install --no-cache-dir -r requirements.txt 5.8s  
=> [backend 5/5] COPY . . 0.1s  
=> [backend] exporting to image 1.5s  
=> => exporting layers 1.0s  
=> => exporting manifest sha256:c903bc79ad6a8778386ba64c739d1e389eb6ec72db807b137e8310688e3079de 0.0s  
=> => exporting config sha256:2d13156c4a71391b1cc198e61fb569d7f27a3ba3190faf7f020d922f15fc99 0.0s  
=> => exporting attestation manifest sha256:41dbe06afbe54dbba56649f18496d6ed66811e64dc5508ec1e4fc88226debb1 0.0s  
=> => exporting manifest list sha256:a8ced9ee98bcb2575f82289b55580a257b0b0a5159df9776bac4e9495503a0ee 0.0s  
=> => naming to docker.io/library/mathup--backend:latest 0.0s  
=> => unpacking to docker.io/library/mathup--backend:latest 0.4s
```

```
frontend-1 | (node:30) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
frontend-1 | (Use `node --trace-deprecation ...` to show where the warning was created)
frontend-1 | (node:30) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
frontend-1 | Starting the development server...
frontend-1 |
frontend-1 | Compiled successfully!
frontend-1 |
frontend-1 | You can now view frontend in the browser.
frontend-1 |
frontend-1 | Local:          http://localhost:3000
frontend-1 | On Your Network: http://172.18.0.3:3000
frontend-1 |
frontend-1 | Note that the development build is not optimized.
frontend-1 | To create a production build, use npm run build.
frontend-1 |
frontend-1 | webpack compiled successfully
frontend-1 | Compiling...
frontend-1 | Compiled successfully!
frontend-1 | webpack compiled successfully
frontend-1 | npm error path /app
frontend-1 | npm error command failed
frontend-1 | npm error signal SIGTERM
frontend-1 | npm error command sh -c react-scripts start
frontend-1 | npm error A complete log of this run can be found in: /root/.npm/_logs/2025-07-06T20_25_27_213Z-debug-0.log
frontend-1 exited with code 1
backend-1 exited with code 137
PS C:\Users\USER\Documents\VICTORIA SEMESTER 6\MathUp-> h
```

Container



The screenshot shows the Docker Desktop interface for a project named "mathup". The project path is listed as C:\Users\USER\Documents\VICTORIA SEMESTER 6\MathUp.

Containers:

- backend** (status: ●) - IP: 5000:5000 - Log output:
 - /root/.npm/ logs/2025-07-06T20_26_59_727Z-debug-0.log
 - npm error A complete log of this run can be found in: /root/.npm/_logs/2025-07-06T20_26_59_727Z-debug-0.log
 - * Serving Flask app 'app'
 - * Debug mode: off
 - WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.**
 - * Running on all addresses (0.0.0.0)
 - * Running on <http://127.0.0.1:5000>
 - * Running on <http://172.18.0.2:5000>
 - Press CTRL+C to quit
 - * Serving Flask app 'app'
 - * Debug mode: off
 - WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.**
 - * Running on all addresses (0.0.0.0)
 - * Running on <http://127.0.0.1:5000>
 - * Running on <http://172.18.0.2:5000>
 - Press CTRL+C to quit
- frontend** (status: ●) - IP: 3000:3000 - Log output:
 - > frontend@0.1.0 start
 - > react-scripts start
 - > frontend@0.1.0 start
 - > react-scripts start
 - (node:30) [DEP WEBPACK DEV SERVER ON AFTER SETUP MIDDLEWARE]
 - DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
 - (Use 'node --trace-deprecation ...' to show where the warning was created)

Notifications:

- Docker Desktop 4.43.1 is available. [Download](#) 4 minutes ago
- Scout wants to send OS Notifications through Docker Desktop. [View](#) Just now

Improvement

- Multiple Choice Questions
- Progress Bar how far the user's level
- Timer countdown per question
- Review Wrong Answers
- Improve the user interface



Thank You...

